

## Case 3276

### ***Narella* Gray, 1870 (Coelenterata, Octocorallia): proposed conservation of usage by designation of a neotype for its type species *Primnoa regularis* Duchassaing & Michelotti, 1860**

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**Abstract.** The purpose of this application, under Article 75.6 of the Code, is to conserve the current understanding and usage of the generic name *Narella* Gray, 1870 (family PRIMNOIDAE) for a deep-sea western Atlantic octocoral by designating a neotype for its type species *Primnoa regularis* Duchassaing & Michelotti, 1860. The holotype of *P. regularis* was recently found to belong in the genus *Paracalyptrophora* Kinoshita, 1908. It is therefore proposed that the holotype of *Primnoa regularis* be replaced with a neotype that represents the established interpretation of that species and which will conserve the stability and usage of the generic names *Narella* and *Paracalyptrophora*.

**Keywords.** Nomenclature; taxonomy; Octocorallia; PRIMNOIDAE; *Narella*; *Paracalyptrophora*; *Narella regularis*; Lesser Antilles.

1. The genus *Narella* Gray (1870, p. 49) was established for a deep-sea octocoral and based on the single species *Primnoa regularis* Duchassaing & Michelotti, 1860 (p. 293), the type species by monotypy. The species *P. regularis* was described from one dried specimen collected at Guadeloupe (Lesser Antilles). The holotype is deposited in the Museo Regionale di Scienze Naturali, Turin, catalogue no. Coel. 275 (ex. 175), and consists of one main colony and about a dozen smaller branches that have broken from it. No polyps are intact, but some coenenchymal sclerites are present on the stalk and as residue. The species was briefly described without comparison with other species, and illustrated in such a way that did not indicate its colony morphology.

2. Wright & Studer (in Studer, 1887, p. 49) described the genus *Stachyodes* without included species (type species by subsequent monotypy by Wright & Studer (1889) *S. regularis* Wright & Studer, 1889). Versluys (1906) recognized that *Primnoa regularis* (type species of *Narella* Gray, 1870) belongs in the genus *Stachyodes* Wright & Studer, 1887 and renamed it *S. studeri* to avoid junior secondary homonymy with *S. regularis* (Duchassaing & Michelotti, 1860). However, Versluys persisted in using the junior synonym *Stachyodes*. Deichmann (1936) resurrected the name *Narella*, and since then that name has been consistently used for species of this genus. Furthermore, the name *Stachyodes* Wright & Studer, 1887 is a junior

homonym of *Stachyodes* Bargatzky, 1881, a fossil stromatoporoid, and thus is not available for this octocoral genus.

3. Wright & Studer (in Studer, 1887, p. 49) described the genus *Calypterus* (type species by subsequent monotypy by Wright & Studer (1889) *C. allmani* Wright & Studer, 1889). *Calypterus* was also synonymized with the octocoral *Stachyodes* (=*Narella*) by Versluys (1906) and has not been used as a valid name since Roule (1896) or in combination with any other species but its type species.

4. The genus name *Narella* has gained acceptance over the last 50 years. It has been cited as a valid genus in the major revisions of the order (see Bayer, 1956; Tixier-Durivault, 1987), in published keys to the order or family (see Bayer, 1981; Bayer & Stefani, 1989), and in routine taxonomic works (see Bayer, 1951; 1995; 1997; Utinomi, 1979; Williams, 1992; Cairns & Bayer, 2003). Currently 26 species occurring worldwide are attributed to the genus *Narella*.

5. In the course of a study of the western Atlantic deep-water octocorals (Cairns & Bayer, 2003; 2004 (in press)), the holotype of *Primnoa regularis* was examined and found not to be consistent with the accepted usage of the name, but instead to belong to an undescribed species in the genus *Paracalyptrophora* Kinoshita, 1908 (pp. 58, 63). Originally described as a subgenus of *Calyptrophora* by Kinoshita, *Paracalyptrophora* was elevated to generic status by Bayer (1981), and now consists of six species, including three species recently described by Cairns & Bayer (2004 (in press)). *Calyptrophora kerberti* Versluys, 1906 (p. 105) has been designated as the type species of *Paracalyptrophora* by Cairns & Bayer (2004). Recognition of the holotype of *Primnoa regularis* would result in the transfer of the six species currently placed in *Paracalyptrophora* to *Narella*, and the transfer of the 26 species currently placed in *Narella* to the next available junior synonym, *Calypterus*, a name not employed for 107 years. This action would also obscure the morphological similarity and implied phylogenetic affinity between the two genera *Calyptrophora* Gray, 1866 and *Paracalyptrophora*.

6. In order to conserve the name *Narella regularis* and the genus name *Narella* in its current use, we propose that the holotype of *Primnoa regularis* be set aside, and a neotype be designated in accord with currently accepted use of the name, in accordance with Article 75.6 of the Code. The proposed neotype (USNM 49385) is from St. Vincent (Albatross-2752), not from the exact type locality of Guadeloupe but also in the Lesser Antilles, and is described and illustrated by Cairns & Bayer (2003). The specimen is consistent with the usage of this name by all subsequent authors, including Deichmann (1936), Grasshoff (1982) and Bayer (1956).

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous type fixations for the nominal species *Primnoa regularis* Duchassaing & Michelotti, 1860, and to designate the specimen USNM 49385 in the United States National Museum, Washington, D.C., as the neotype;
- (2) to place on the Official List of Generic Names in Zoology the following names:
  - (a) *Narella* Gray, 1870 (gender: feminine), type species by monotypy *Primnoa regularis* Duchassaing & Michelotti, 1860;

(b) *Paracalyptrophora* Kinoshita, 1908 (gender: feminine), type species by subsequent designation by Cairns & Bayer (2004) *Calyptrophora kerberti* Versluys, 1906;

(3) to place on the Official List of Specific Names in Zoology the following names:

(a) *regularis* Duchassaing & Michelotti, 1860, as published in the binomen *Primnoa regularis* and as defined by the neotype designated in (1) above (specific name of the type species of *Narella* Gray, 1870);

(b) *kerberti* Versluys, 1906, as published in the binomen *Calyptrophora kerberti* (specific name of the type species of *Paracalyptrophora* Kinoshita, 1908).

## References

Bargatzky, A. 1881. *Die Stromatoporen des rheinischen Devons.* (Dissertation). 78 pp. Wilhelms University zu Bonn, Bonn.

Bayer, F.M. 1951. Two new primnoid corals of the subfamily Calyptrophorinae (Coelenterata: Octocorallia). *Journal of the Washington Academy of Sciences*, **41**(1): 40–43.

Bayer, F.M. 1956. Octocorallia. Pp. F166–189, 192–231 in Moore, R.C. (Ed.), *Treatise on Invertebrate Paleontology*. 498 pp. University of Kansas Press, Lawrence.

Bayer, F.M. 1981. Key to the genera of Octocorallia exclusive of Pennatulacea (Coelenterata: Anthozoa), with diagnoses of new taxa. *Proceedings of the Biological Society of Washington*, **94**(3): 902–947.

Bayer, F.M. 1995. A new species of the gorgonacean genus *Narella* (Anthozoa: Octocorallia) from Hawaiian waters. *Proceedings of the Biological Society of Washington*, **108**(1): 147–152.

Bayer, F.M. 1997. *Narella nuttingi*, a new gorgonacean octocoral of the family Primnidae (Anthozoa) from the eastern Pacific. *Proceedings of the Biological Society of Washington*, **110**(4): 511–519.

Bayer, F.M. & Stefani, J. 1989. Primnoidae (Gorgonacea) de Nouvelle-Calédonie. *Bulletin du Muséum National d'Histoire Naturelle, Paris*, (4)**10**(3): 449–518.

Cairns, S.D. & Bayer, F.M. 2003. Studies on western Atlantic Octocorallia (Coelenterata: Anthozoa). Part 3: The genus *Narella* Gray, 1870. *Proceedings of the Biological Society of Washington*, **116**(3): 617–648.

Cairns, S.D. & Bayer, F.M. 2004 (in press). Studies on western Atlantic Octocorallia (Coelenterata: Anthozoa). Part 4: The genus *Paracalyptrophora* Kinoshita, 1908. *Proceedings of the Biological Society of Washington*, **117**(1).

Deichmann, E. 1936. The Alcyonaria of the western part of the Atlantic Ocean. *Memoirs of the Museum of Comparative Zoology at Harvard College*, **53**: 1–317.

Duchassaing, P. & Michelotti, J. 1860. Mémoire sur les coralliaires des Antilles. *Mémoires de l'Académie des Sciences de Turin*, (2)**19**: 279–365.

Grasshoff, M. 1982. Die Gorgonaria, Pennatularia und Antipatharia des Tiefwassers der Biskaya (Cnidaria, Anthozoa). II. Taxonomischer Teil. *Bulletin du Muséum National d'histoire Naturelle, Paris*, Section A, (4)**3**(4): 941–978.

Gray, J.E. 1870. *Catalogue of the lithophytes or stony corals in the collection of the British Museum*. 51 pp. British Museum, London.

Kinoshita, K. 1908. Primnoidae von Japan. *Journal of the College of Science, Imperial University, Tokyo, Japan*, **23**(12): 1–74.

Roule, L. 1896. Coelentéré Résultats scientifiques de la Campagne du ‘Caudan’ dans le Golfe de Gascogne-Août-Septembre 1895. *Annales de l'Université de Lyon*, **26**: 299–323.

Studer, T. 1887. Versuch eines Systemes der Alcyonaria. *Archiv für Naturgeschichte*, **53**(1): 1–74.

Tixier-Durivault, A. 1987. Sous-classe des Octocoralliaires. Pp. 3–185 in Doumenc, D. (Ed.), *Traité de Zoologie*. Volume 3: Cnidaires, Anthozoaires. 859 pp. Masson, Paris.

Utinomi, H. 1979. Redescriptions and illustrations of some primnoid octocorals from Japan. *Proceedings of the Biological Society of Washington*, **91**(4): 1008–1025.

Versluys, J. 1906. Die Gorgoniden der Siboga-Expedition. II. Die Primnoidae. *Siboga-Expedition*, 13a: 1–187.

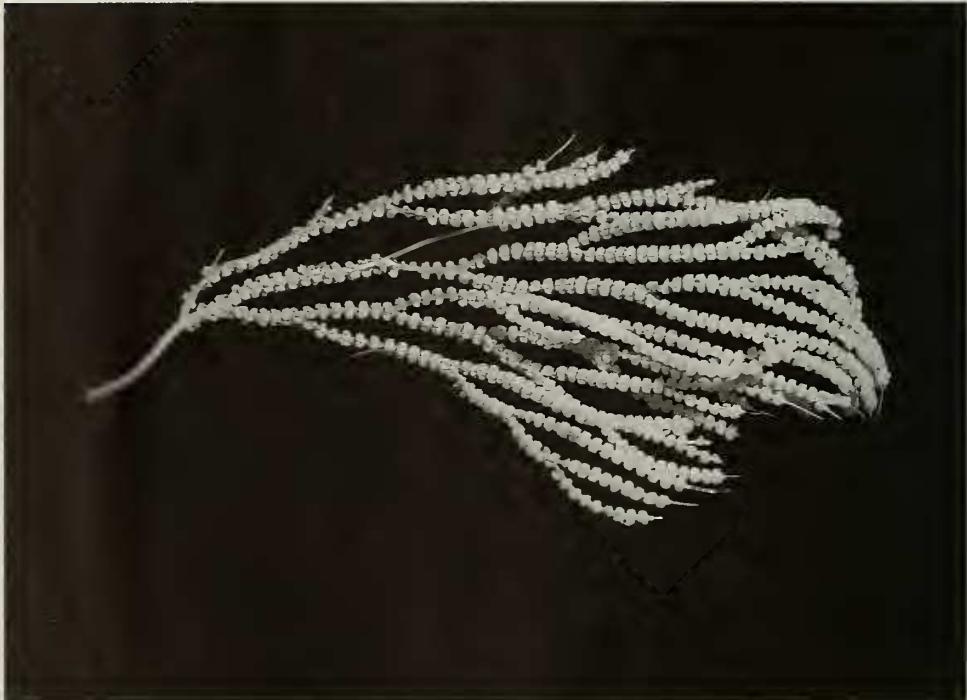
Williams, G.C. 1992. The Alcyonacea of southern Africa. Gorgonian Octocorals (Coelenterata, Anthozoa). *Annals of the South African Museum*, 101(8): 181–296.

Wright, E.P. & Studer, T. 1889. Report on the Alcyonaria collected by H.M.S. *Challenger* during the years 1873–76. *Report on the Scientific Results of the Voyage of H.M.S. Challenger during the years 1873–76*, Zoology, 31(64): 1–314.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).



Proposed neotype of *Primnoa regularis* Duchassaing & Michelotti, 1860, Albatross station 2752, USNM 49385, height 16 cm.